Abstract
Attention control and specifically distractor suppression is a fundamental process that is called upon in a variety of scenarios. In fact, different scenarios might also depend on our inherent ‘inability’ to suppress distractors (imagine crossing the road while focusing on your phone…) or our ability to utilise different modes of attention control (e.g., static vs. dynamic). Interestingly, independent lines of evidence in both autism and schizophrenia spectrum disorder (ASD and SSD, respectively) and the broader spectrum of their traits in neurotypical participants point to attentional atypicalities, especially when distracting information needs to be inhibited. However, previous reports have been mixed in the direction of these effects, highlighting scenarios of both beneficial and detrimental outcomes in these syndromes. Recent work in my lab attempts to delineate the specific effect ASD and SSD have on attention control and distractor suppression. Using a combination of behavioural and brain stimulation studies our findings support a diametrical model of ASD and SSD where each pushes the individual in the opposite ‘attentional direction’. We propose that these trait expressions diametrically mediate brain mechanisms involving the Precuneus that underlie static and dynamic attention control. In identifying such modulations, we hope to highlight a possible intervention pathway towards re-balancing these brain mechanisms in ASD and SSD.